



United States Department of Agriculture

KAIBAB NATIONAL FOREST

# CONNECTING SCIENCE AND SPIRIT



2014 Accomplishment Report





Message from the Forest Supervisor

It's been my privilege to serve as Forest Supervisor for the Kaibab National Forest since late 2001, and I continue to be impressed by the amount and quality of work our employees accomplish year after year. Fiscal year 2014 was no exception, and it may in fact prove to be a banner year due to some major achievements that will shape the way the forest is managed for years to come.

Fundamental to the future of the Kaibab National Forest was the completion of our newly revised Land and Resource Management Plan, which was approved by the Regional Forester in February 2014. The plan was built on a foundation of the best available science, and developed collaboratively with the public, partners, conservation organizations, other federal and state agencies, and local and tribal governments. It reflects the input we received from many stakeholders as well as the mission of the United States Forest Service. It is truly the framework for how we will manage healthy, resilient ecosystems while promoting ecological integrity and contributing to social and economic sustainability. The importance of implementing our new forest plan in 2014 cannot be overstated. It will guide everything we do for the next 15+ years.

I'm proud that we can already point to specific examples of projects and accomplishments on the Kaibab National Forest during 2014 that resulted directly from implementation of the new forest plan. In this report, you'll read details of much of this work, but I wanted to mention a few highlights. The spring restoration project on the North Kaibab Ranger District involving elders and youth from the Hopi Tribe, as well as many other partner organizations, combined and put into action two important goals of the newly revised plan. First, it implemented desired conditions for seeps and springs that had been developed collaboratively and identified in the plan. Second, it provided a setting for exchanging information between tribal elders and youth about land stewardship and offered an opportunity for the sharing of traditional ecological knowledge between the tribe and forest, which will contribute to our future management actions on seeps and springs.

Managing the Sitgreaves Complex Fire last August was another example of an important accomplishment made possible by the revision of our forest plan. The winter of 2013/14 was exceptionally dry. Sitgreaves Mountain on the Williams Ranger District has extremely steep and rough topography, heavy timber, and no pre-existing barriers to wildfire spread. These and other factors meant that, in the past, immediate and full suppression had been the strategy for all fires that occurred on the mountain. The new plan not only encourages allowing fire to play its natural role in the ecosystem, it removed prescriptive restraints that had been present in the previous forest plan. This allowed a strategy other than full suppression to be considered on the mountain, which resulted in thousands of acres of fuel reduction that will help protect the mountain and nearby communities for decades to come. The Sitgreaves Complex Fire wasn't the only managed fire in 2014 made possible by the new forest plan, but it was our largest. I believe that the revised plan will continue to open doors to managing fire across our landscape that might otherwise have remained closed.

Finally, I have to emphasize the new plan's contribution to and guidance for our most critical work – that of large-scale forest restoration. The plan provides direction to increase the amount and rate of mechanical thinning, much of which – at least on the Williams and Tusayan districts – will be implemented through the Four Forest Restoration Initiative (4FRI). In late 2014, our first 4FRI large-scale environmental impact statement and draft record of decision for the Kaibab and Coconino National Forests were issued, an accomplishment that will lead to restoration work on about 586,110 acres over the next 10 years. On average, we expect 45,000 acres of small-diameter pine trees and other vegetation will be mechanically thinned annually, and 40-60,000 acres of prescribed fire will be implemented each year.

These and many other major accomplishments in 2014 have set the stage for an unprecedented scope and scale of forest management work on the Kaibab National Forest in the coming years. It is with anticipation and eagerness that I look forward to 2015 and beyond, recognizing the importance of the challenges and opportunities in front of us.



Mike Williams  
Forest Supervisor



TAKING YOU TO THE EDGE

From canyons and valleys to peaks and plateaus, the Kaibab National Forest offers layers of opportunities for peace, solitude and discovery. Hundreds of miles of trails, some clinging tightly to the north and south rims of the Grand Canyon, allow you to step off the beaten path into uncrowded landscapes. Developed campgrounds along scenic corridors provide a safe haven for travelers. Learn of the rich cultural history and precious natural resources of the area and renew your spirit in a place where history comes alive every day.

ABOUT THE FOREST

The Kaibab National Forest is one of six national forests in Arizona. It covers 1.6 million acres and is broken into three geographically separate ranger districts, each located in distinct areas and offering diverse opportunities and experiences.

The North Kaibab Ranger District, along with the North Rim of Grand Canyon National Park, encompasses the beautiful high country of the Kaibab Plateau. This sky island affords visitors the chance to take a scenic drive on the Kaibab Plateau-North Rim National Scenic Byway, experience incomparable views of Marble and Grand canyons, hike through aspen-ringed meadows, mountain bike along the rim of the Grand Canyon, and observe unique wildlife such as the Kaibab squirrel.

To the south of Grand Canyon, the Williams and Tusayan districts are part of the largest contiguous ponderosa pine forest in the world. The Williams Ranger District is characterized by volcanic hills and mountains and includes four lakes – White Horse, Kaibab, Dogtown and Cataract – that provide opportunities for fishing, camping, picnicking and wildlife viewing. Grasslands, known locally as prairies, break up the pine forest and provide dramatic contrasts in scenery, especially during the late summer wildflower season. The Williams district is also home to Bill Williams, Kendrick and Sitgreaves mountains, all over 9,000 feet in elevation.

The Tusayan Ranger District offers more gradual changes in elevation, which make it ideal for scenic driving, hiking, horseback riding and mountain biking. While most of the Tusayan district is flat to gently rolling, there are two exceptions. The district is bordered on the east by the Navajo Indian Reservation, where the rugged Coconino Rim drops off toward the Little Colorado River. To the south, Red Butte dominates the landscape. This volcanic hill is a remnant of past volcanic activity and has cultural significance to local Native American tribes.

ANNUAL PRECIPITATION

The 2014 water year was a year of extremes. It began with below average precipitation and finished with an above average monsoon. The winter of 2014 was the third driest for the Williams and Tusayan districts, with the area receiving an average of just 4.09 inches, which is only 50 percent of the 20-year winter average.

The monsoon season on the Williams and Tusayan districts was exceptional, with the area receiving 12.68 inches of precipitation, which is 203 percent of the 20-year average and the second wettest monsoon over the same time period. Overall, 2014 on the Williams and Tusayan districts finished above average with 16.77 inches, which is 116 percent of the 20-year average and the eighth wettest overall for the same time period.

The North Kaibab district followed the same trend as the southern districts but was not as extreme. The North Kaibab district received 6.95 inches of pre-monsoonal moisture, which is 83 percent of the 20-year average. The monsoon was particularly good on the North Kaibab as well, with the area receiving 11.68 inches of precipitation, which is 187 percent of the 20-year average and the second wettest monsoon over the same period. Overall the North Kaibab district received above average precipitation in 2014 at 18.67 inches, which is 127 percent of the 20-year average and the fourth wettest overall for the same time period.

I think the Sitgreaves Complex Fire is an excellent example of an activity that captures the spirit of, and was made possible by, the revised forest plan. This fire would have been suppressed under the old plan because of conditions in the forest at the time of the fire's start. However, in recognition of the need to improve the health of ponderosa pine and mixed conifer forests on the Kaibab, the revised plan provided us the flexibility to manage this fire. As a result, we were not only able to meet plan objectives for fire in these forest types in 2014 but also able to make great strides toward improving the resilience of the forests on Sitgreaves Mountain. – Marcos Roybal, NEPA Planner, Williams/Tusayan Ranger Districts

Kaibab National Forest releases forest management plan

In late February 2014, the Kaibab National Forest released its new land and resources management plan and accompanying final environmental impact statement.

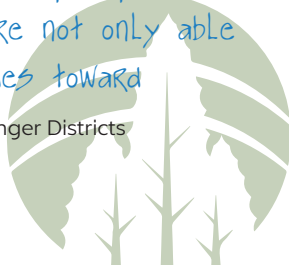
"After nearly eight years of collaboration, outreach and strong effort by our employees and many partners and active stakeholders, I believe we have an exceptional forest plan that will stand the test of time as it is implemented, monitored and adapted on the Kaibab National Forest over the next two decades," said Mike Williams, forest supervisor.

The new plan was built on a foundation of the best available science, and developed collaboratively with the public, partners and conservation organizations, as well as federal, state, local and tribal governments. It provides guidance for the management of healthy, resilient

ecosystems that meet the diverse needs of the American people.

The new forest plan provides direction to:

- Restore ponderosa pine, frequent fire mixed conifer forests and grasslands by increasing the amount and rate of mechanical thinning and managed fire treatments to reduce the risk of uncharacteristic fire and improve ecological resilience in the face of climate change.
- Promote aspen regeneration and protect natural waters, which are important centers of biological diversity.
- Provide for sustainable uses that honor the forest's human history while meeting current demands.
- Establish a monitoring framework that enables adaptive management.
- Recommend about 6,400 acres for wilderness designation, adjacent to existing wilderness.





## Watershed Restoration

Good watershed management maintains the productive capacity of soils, protects water quality and quantity, sustains native species, provides beneficial uses, and reduces the threat of flood damage to Forest Service infrastructure and downstream values.

Watershed protection was one of the primary reasons for establishing the national forests. Forested lands absorb precipitation, refill regional underground aquifers, sustain watershed stability and resilience, and provide aquatic and wildlife habitat. On the Kaibab National Forest, the highest risk to watersheds is uncharacteristic wildfire. Projects that reduce this risk and restore the natural vegetative and fuels composition also restore watersheds. As a result, the Kaibab uses an integrated management approach to make progress toward desired soil and watershed conditions.

During fiscal year 2014, the Kaibab National Forest completed watershed restoration work on 126,046 acres. Much of this success stemmed from the reintroduction of fire to fire-adapted ecosystems through prescribed fires and wildfires managed for resource benefits.

Other successes included the following:

- Using the agra-axe to remove encroaching pinyon and juniper trees from grasslands on the Williams Ranger District. More than 1,500 acres were treated in partnership with the Arizona Game and Fish Department.
- Monitoring water quality at recreational lakes on the forest including Cataract Lake, Dogtown Reservoir, Kaibab Lake and White Horse Lake. The entire water column was monitored at each lake in one meter intervals from the lake bed to the surface. Water quality parameters monitored included temperature, pH, specific conductance, turbidity, total dissolved solids, dissolved oxygen, and oxidation-reduction potential. No indications of impairment of water quality were recorded.
- Installing livestock exclosures to prevent livestock from damaging spring sources.
- Mulching and seeding operations as part of the Eagle Rock Fire Burned Area Emergency Stabilization project greatly improved soil conditions in all areas treated. About 600 acres were seeded with sterile barley and native seed, and 518 acres were mulched using agricultural straw.



## KAIBAB NATIONAL FOREST: A CLASSROOM WHERE COMMUNITIES MEET, LEARN TOGETHER

In Native American communities, there is an abiding respect for life, nature, family, elders and community. This was especially apparent as Hopi elders partnered with the Hopi Tribe Workforce Investment Act Program and managers of the Kaibab National Forest to spend five days mentoring Hopi tribal youth and working together to restore two natural springs on the North Kaibab Ranger District during summer 2014.

This spring restoration work was the first tribal-Forest Service collaborative project to be implemented since the February 2014 publication of the new Land and Resources Management Plan (forest plan) for the Kaibab National Forest, and the concept of shared stewardship is a commitment that the Forest Service plans to expand on over time.

In 2006, the Kaibab National Forest began revising its forest plan, a document that provides guidance and direction to Forest Service staff so they may best fulfill stewardship responsibilities in order to meet the needs of the American people, now and for future generations. During consultation on the new forest plan, tribal partners identified the condition of natural springs on the Kaibab as an area for potential focus, and

a desire to build partnerships to restore these vital resources. Protecting the Kaibab's natural waters came forward as an important concern for both the tribes and the Forest Service.

"All lands managed by the Forest Service were once tribal lands. Prior to the creation of national forests, native people lived here for centuries and amassed a tremendous amount of information about how we care for the land. We call that traditional ecological knowledge," said Kaibab National Forest tribal liaison Mike Lyndon. "Whenever we can integrate traditional ecological knowledge into our management techniques, we get better management."

The project centered on improvements to Castle Springs and Big Springs on the North Kaibab. More than 40 people from the Forest Service and Hopi Tribe labored together to erase graffiti at Castle Springs and remove a decaying corral, rusted barbed wire and trash in the vicinity. The group also uprooted invasive vegetation encroaching in an adjacent meadow, constructed water catchments for both wildlife and grazing cattle, and built a fence to protect the spring.

"It was such an honor to be able to participate in this sharing of

traditional knowledge. The knowledge the Hopi elders shared was such a benefit to the youth, and to us Forest Service representatives. The work we did was especially beneficial to the land we all cherish and care so much about," said Dan Meza, tribal relations program manager for the Forest Service Southwestern Region.

As improvements to Castle Springs were being completed, work was also being done at Big Springs. As an example, participants constructed a more visible path near the spring in order to deter visitors from creating their own trails, alleviating the spider web effect of footpaths that was damaging fragile soils.

As part of the overarching purpose of the spring restoration project, the Forest Service sought to gain traditional ecological knowledge from the tribes that could be incorporated into future land management activities. The sharing of knowledge from one generation to the next and from one culture to another is critical as the Kaibab National Forest continues to seek ways to jointly manage important local resources such as natural springs.

"Involving our youth along with our tribal advisors helps us pass on traditional knowledge," said

Hopi Cultural Preservation Office archaeologist Joel Nicholas, Hon-Piqoswunga (Bear Strap Clan). "We are only here for so long, and we need our teachings to be passed on to the generations that come after us."

"Technology today has progressed so much that we sometimes take it for granted. We turn the faucet and expect to get hot water, and we get upset when we don't have hot water or gas," explained Robert "Chuck" Adams, a member of the Pipwungwa (Tobacco Clan) from the Tewa Village of Hano. "These resources are our lifeline. Water is life and showing people so they understand this link and its effect to our communities and our families is important."

Spring restoration participants are already brainstorming ideas for the next collaborative project and how the tribal-Forest Service partnership can continue to expand.

"Every time we get out on the ground and work together, the relationships become stronger, and it always opens the door for the next project. We're looking forward to continuing the work we're doing together," said Mike Williams, forest supervisor for the Kaibab National Forest.



I continue to draw inspiration from working with tribal youth and elders on projects like the Kaibab Paiute Kids Camp and the Hopi Youth Spring Restoration Project. Kids become engaged in the woods in a way that simply does not happen in the classroom. It is gratifying to provide a venue for tribal people of all generations to reconnect with the forest.

— Britt Betenson, Archaeologist,  
North Kaibab Ranger District







## KAIBAB ADDS BIG SPRINGS CABINS TO ITS CABIN RENTAL OFFERINGS

The North Kaibab Ranger District has added seven Big Springs cabins to the Kaibab National Forest's cabin rental offerings. The seven cabins will be available for public use May 1 as part of the Arizona Cabin Rental "Rooms with a View" program.

Tucked away in the forest's ponderosa pines along Forest Road 22, each of the cabins offers a divine view of Big Springs, the Kaibab Plateau's most abundant water source, as it runs down an exposed limestone cliff face on the east and pools into two ponds at the cabins' edge on the west.

The Forest Service recently completed renovations to these structures, and modern accommodations for groups of two to four per cabin include accessible drinking water, accessible flush toilets and showers, beds with mattresses, accessible laundry facilities, and more.

The Big Springs cabin site is located about 30 miles from Fredonia, about an hour drive from the north rim of the Grand Canyon, and about a 35 minute drive from the Rainbow Rim Trail, a winding 18-mile long hiking and mountain biking trail on the forest that offers stunning views from five scenic overlooks along the north rim of the Grand Canyon.

The Kaibab National Forest has two other cabins available for rent – Spring Valley Cabin on the Williams Ranger District and Hull Cabin on the Tusayan Ranger District.



## KAIBAB NATIONAL FOREST WELCOMES NEW DISTRICT RANGERS

In early 2014, the Kaibab National Forest welcomed two new district rangers to leadership positions on the forest.

Danelle D. Harrison took over as district ranger for the Williams Ranger District, filling the position vacated by Martie Schramm some months prior. Harrison came to the Kaibab from the Forest Service's Washington office, where she served as the national integrated resource restoration program manager and forest products analyst for the forest management staff. Harrison had previously worked on several national forests during her career and in a variety of capacities, including trails, recreation, fire prevention and research. She was also a program liaison specialist for the secretary of agriculture.

"I'm looking forward to being a part of the great team already in place, making sound science-based decisions that have positive social and economic impacts, as well as becoming a part of the community and working hand-in-hand with the citizens of Williams and our partners," Harrison said just before occupying her new post.



James Simino began his tenure as the district ranger for the Tusayan Ranger District, filling the position vacated by Nick Larson. Simino came to the Kaibab from the Rogue River-Siskiyou National Forest in southwestern Oregon, where he served as the district fisheries biologist. Simino began his federal career in 1997 with the Eugene District of the Bureau of Land Management in Oregon. Since then, he also worked for the Forest Service's Pacific Northwest Research Station, Crater Lake National Park in Oregon, the Willamette National Forest in Oregon, the White Mountains National Forest in New Hampshire, and the Santa Fe National Forest in New Mexico.

"I am truly honored to be selected for the Tusayan district ranger position," Simino said upon arriving to the Kaibab. "It will allow me to use my love for working with people, both internally and externally, to ensure that great work is being accomplished on the district."

## WILLIAMS YOUTH ADOPT A TRAIL

The Williams Mayor's Youth Advisory Group continues working on the City Link Trail on the Williams Ranger District under an Adopt-A-Trail agreement with the Kaibab National Forest. The group members, who are all students at Williams High School, are installing signs and placing blazers along the trail. The students are also responsible for removing litter and maintaining the trail. They have been working with Kaibab National Forest recreation specialists on the project for more than a year.



**MILES OF SYSTEM TRAIL IMPROVED OR MAINTAINED – 104.4 MILES**



# PROVIDING NOURISHMENT & RENEWAL OF SELF & SPIRIT

## Williams and Tusayan districts consider camping corridors

The Kaibab National Forest is considering designating camping corridors on the Williams and Tusayan ranger districts in order to better meet the public's need for motorized dispersed camping opportunities. The proposal is part of the South Zone Travel Management Revision Project, which was first scoped with the public during May 2014.

Specifically, the Kaibab National Forest proposed to designate camping corridors along about 223 miles of roads across the two districts, 159 on the Williams Ranger District and 64 on the Tusayan Ranger District. The proposal was for the corridors to extend 200 feet from either side of the centerline of the roads. Motor vehicle use for the purpose of dispersed camping would be allowed within designated corridors. Where camping corridors are not designated, visitors would continue to be allowed to drive and park up to 30 feet off open roads.

"We have listened to the concerns of the public regarding the lack of opportunities for motorized dispersed camping on the Williams and Tusayan districts," said Mike Williams, forest supervisor. "We made a commitment to our communities to be responsive and refine our transportation system over time."

Besides the designation of camping corridors, the Kaibab also proposed to make changes to the existing road system by adding 32 miles and removing 10 miles of roads on the two districts. This included the proposed addition of 15 short spur routes on the Tusayan Ranger District that access historically-popular motorized dispersed camping sites.

The proposed changes stemmed from more than three years of monitoring following implementation of the Travel Management Rule on the districts.



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## NORTH KAIBAB ARCHAEOLOGISTS CONDUCT WORKSHOP FOR GIRLS' SUMMER CAMP

The North Kaibab Ranger District heritage staff participated in the fifth annual eSMART summer camp for girls at Dixie State University over the summer, and gave the campers a glimpse into 11,000 years of human history as revealed by artifacts found on the Kaibab National Forest.

The eSMART camp is sponsored by the local St. George branch of the American Association of University Women, and the eSMART acronym means “Exploring Science, Math and Related Technology.” As part of the camp curriculum, Kaibab National Forest archaeologists Connie Reid Zweifel and Britt Betenson conducted a workshop entitled “Detectives of the Past” aimed at helping give the girls a basic understanding of the role that archaeology plays in the world of Forest Service science.

“Archaeology has a story to tell,” said Betenson. “Generally, the deeper you dig the older the artifacts are, and when artifacts are disturbed it is difficult to tell the story. Artifacts are like words jumbled in a book and when they are disturbed it is difficult to understand the story.”

During her opening remarks, Betenson talked about her own personal experiences and love for archaeology with the aim of teaching the girls how fun science can be. “Our profession is very unique because as archaeologists we have to use different types of science to understand the past,” said Betenson, as she explained how biologists, botanists, geologists, chemists, and other Forest Service scientists work together toward the common goal of managing public lands. Betenson shared how she worked with a chemist to analyze residue found on sherds from Paiute pottery vessels as part of her graduate school thesis work, and how that analysis determined that the pots were used to cook seeds, nuts, berries and greens.

The workshop was especially significant for Zweifel because her daughter Gabrielle attended the very first eSMART camp in St. George as a seventh grader and returned this year to help her mom and the other Kaibab archaeologists teach the campers that science can be enjoyable and lead to fulfilling, rewarding careers.

“I think eSMART has the potential to make a real difference in a lot of girls' lives by showing them that studying science is not too hard or unrealistic of a goal. The eSMART program helped me realize that I could succeed in any field if I put my mind to it,” said Gabrielle Zweifel, who would soon be graduating from Kanab High School.

Sometimes when it snows up on the Kaibab Plateau, and you look from Fredonia, you get to see how much snow has fallen the night before, and as the sun is about to rise up and over the Kaibab the following morning, to me there is a calmness, maybe a feeling of warmth, in Navajo we call it “Beauty,” a blessing.

– Randy Yellowhorse, Assistant Crew Supervisor, Timber Pre-Sale, North Kaibab Ranger District

# INCORPORATING NEW SCIENTIFIC & TRADITIONAL CULTURAL KNOWLEDGE

### Tribal Relations



Tribes with aboriginal territories and traditional ties to the land now administered by the Kaibab National Forest include the Havasupai Tribe, the Hopi Tribe, the Hualapai Tribe, the Kaibab Band of Paiute Indians, the Navajo Nation, the Yavapai-Prescott Indian Tribe and the Pueblo of Zuni. The Kaibab National Forest shares boundaries with Havasupai and Navajo tribal lands and is in close proximity to numerous tribal communities. The forest borders the Grand Canyon National Park and is part of a unique cultural landscape of great traditional and cultural value to native people. The Kaibab tribal relations program facilitates open communication

with federally recognized tribes and the development of tribal partnerships related to all aspects of forest management. Key accomplishments included the following:

- Building partnerships for range management on tribal boundaries. The Tusayan Ranger District shares boundaries with both Havasupai and Navajo tribal lands. Due to poor fence conditions and a variety of other factors, trespass livestock on the district has been a growing concern for the forest, both tribes, and a number of other agencies. The Kaibab partnered with the Havasupai Tribe, Navajo Nation, Bureau of Indian Affairs, Arizona Department of Agriculture, Arizona Game and Fish Department, Grand Canyon National Park, and private stakeholders to increase communication and coordination on trespass livestock issues. On-the-ground actions included maintenance or reconstruction of 12 miles of fence line. The Arizona Department of Agriculture, Kaibab National Forest, and Havasupai Tribe coordinated with tribal members to gather 200 head of trespass livestock. The Navajo Nation coordinated with the Bureau of Indian Affairs to gather 50 head of trespass horses.
- Western Navajo elders' fuelwood drive. Many households on the Navajo Nation rely on fuelwood

for heating during winter months and may require 4-5 cords of wood for the winter season. Tribal elders are often dependent on others for fuelwood gathering and may have difficulty stockpiling enough wood on their own. Kaibab National Forest Navajo liaison Mae Franklin organized four community wood drives during 2014 on the Tusayan Ranger District to provide fuelwood to senior citizens in Navajo communities. Forest employees were present at free-use areas to issue permits to community members and volunteers. Fifty-five permits were issued for a total of 220 cords of fuelwood. Also during the year, 300 fuelwood permits were issued in the Navajo community of Cameron, Ariz., for a total of 1200 cords of fuelwood. These initiatives continue to reduce requests for fuelwood during the winter season, when wet road and ground conditions increase the potential for impacts to resources.

- Government-to-Government consultation. During the year, the Kaibab National Forest coordinated 14 formal consultation meetings and field visits with the Hopi, Havasupai, Hualapai, Kaibab Paiute, and Navajo tribes. All Kaibab line officers regularly participate in consultation

meetings and frequently travel significant distances (up to 200 miles one way) to meet with tribal partners. Also, employees from every functional area on the Kaibab National Forest contribute their time to foster strong relationships with area tribes. In addition to legally-mandated consultation, Kaibab staff members participate in a wide variety of conservation education and other events that contribute to the forest's relationships with tribal partners.

- Alamo Navajo School Board Inc. (ANSBI) thinning projects. Since 2012, the forest and ANSBI have been developing a partnership to fund Navajo crews to implement hazardous fuels reduction projects on the Kaibab. This partnership has been completely funded through grants. In fiscal year 2014, the forest received \$23,209 in additional grant funding to expand this initiative. This project provides critical economic benefits to a community with an unemployment rate of 70 percent while also benefiting forest resources by reducing wildfire risk and improving forest health conditions. The program also produces fuelwood for nearby Navajo communities.
- Hualapai cultural plant surveys. The Hualapai Tribe submitted its final report documenting

botanical surveys on Bill Williams Mountain in support of the Bill Williams Mountain Restoration Project on the Williams Ranger District. In fiscal year 2012, the forest received \$23,000 in grant funding to support tribal plant surveys to support the project. Since then, the Hualapai Tribe has conducted botanical surveys for culturally significant plants, as well as rare plants like *Cimicifuga arizonica* (Arizona Bugbane), on Bill Williams Mountain. The tribe collected 350 plant species from the project area and established a herbarium in Peach Springs, Ariz., for future research. The tribe also identified 66 plant species that had not been previously identified within the project area.

- Hopi kiva timbers project. Hopi tribal members from the village of Oraibi worked with Kaibab National Forest employees to harvest 20 trees for use in Hopi village kiva reconstruction projects. Kivas, communally owned, ceremonial structures, have been used for hundreds of years, but the large-diameter trees needed for their construction were historically obtained on lands now managed by the Forest Service. The agency's ability to provide such materials to tribes for traditional purposes was recently expanded by new directives under the Cultural and Heritage Cooperation Authority. The Bill Williams Mountain Restoration Project will provide

access to additional areas where such timbers can be harvested by the Hopi Tribe for this purpose.

- Restoring natural springs with Hopi youth and elders. The forest implemented a new partnership with the Hopi Tribe to incorporate Hopi traditional ecological knowledge into spring restoration projects under the new Land and Resources Management Plan for the Kaibab National Forest. Spring restoration is one of the four priority areas in the new plan due in part to tribal cultural values associated with natural springs.



### Kaibab National Forest seeks to protect public safety through repair of earthen dam

The Kaibab National Forest is proposing to reduce risks to public safety and minimize potential downstream flood damage by modifying Railroad Tank Dam, located in the far eastern portion of the Williams Ranger District.

Railroad Tank Dam is a historic railroad trestle that was abandoned by the railroad in the 1930s. The trestle is a large, earthen embankment that functions as a dam because the existing spillway for the trestle is relatively small and about 20 feet higher than the drainage immediately upstream.

The trestle is also used to provide access to nearby private property. Two residences sit directly beneath the dam on the downstream side and could be threatened in the event of a large flood. Because of these concerns, the Kaibab National Forest is proposing to create a new, low level outlet to eliminate water storage behind the embankment. This will require excavating into the embankment to place a pipe and then refilling and compacting to restore the original shape of the embankment. Studies of downstream flow structures will be consulted to determine the proper size and flow capacity of the new outlet. Additional work is also proposed on the embankment and spillway.



Imagine living in a place so remote that mail, food and supplies are delivered by pack mule. And where a hike to the village includes a 2-mile stretch of switchbacks snaking down the cliffs of the Grand Canyon. Supai village is just such a place. The most remote community in the lower 48 states, it is also the capital of the Havasupai Indian Reservation. Havasupai is world-renowned for the spectacular waterfalls in Havasu Creek, and is an extremely popular tourist destination. The Havasupai, which means people of the blue-green water, have lived in the Grand Canyon and north-central Arizona for more than 1,000 years.

In early January 2014, two new district rangers reported for duty on the Kaibab National Forest, Danelle

D. Harrison on the Williams Ranger District and James Simino on the Tusayan Ranger District. They brought with them significant experience working with tribal partners.

Since reporting for duty, both rangers have traveled to tribal communities to consult on a number of ongoing issues, projects and partnerships. Harrison and Simino also completed the forest's annual line officer consultation trip to Supai, Ariz. This trip is notable because it involves a 16-mile round-trip hike to Supai at the bottom of the Grand Canyon.

Much of what is now the Tusayan and Williams districts on the Kaibab lies within the Havasupai Tribe's traditional territory. In the 1970s, the agency supported the transfer of 185,000 acres of land administered

by the forest to the Havasupai Tribe. That transfer was enacted by Congress in 1975 through the Grand Canyon Enlargement Act.

Since that time, the Tusayan Ranger District has shared a boundary with the Havasupai Indian Reservation, and the forest and tribe have developed a strong working relationship to tackle management issues. In 2001, the forest and tribe developed a Memorandum of Understanding to highlight that relationship and establish standard consultation protocols including regularly scheduled consultation meetings in Supai.

This working relationship has been challenged in recent years by proposals for uranium exploration and mining on the forest, an issue of critical

concern to the tribe. However, the forest and tribe remain committed to collaborative management goals, and the last consultation trip resulted in renewed progress on a variety of issues.

“It was an amazing experience to be invited to Supai to meet with the tribal council. What a wonderful backdrop to a productive meeting,” Simino said.

Harrison agreed. “What an experience to visit with the Havasupai - the relationship-building amongst the tribe and the agency, the oasis that is Supai Village, and the gracious hospitality we received. And hiking in the awe-inspiring beauty that is the Southwestern landscape, all in the name of duty. How fortunate am I?”



# NORTH KAIBAB DISTRICT COMPLETES FUEL REDUCTION WORK AT POPULAR OVERLOOK



The North Kaibab Ranger District completed a fuel reduction project at Le Fèvre Overlook, a popular scenic viewpoint on Highway 89A offering spectacular views of Grand Staircase-Escalante National Monument.

The Le Fèvre Overlook area was one of the sites within the larger Plateau Facilities Fire Protection Project to receive manual and mechanical fuel reduction treatments. The treatment area around the overlook was 12 acres in size. Fuel reduction work focused on reducing tree and plant densities and improving fire resistance.

Before treatment, the area had about 200 trees per acre in a very dense and stagnant condition. This was reduced to a much more desirable 78 trees per acre. The most sizeable decrease in vegetation was in the understory cliffrose and pinyon-juniper with an average of 62 plants and small trees per acre post-treatment compared with 443 plants per acre pre-treatment. Initial post-treatment monitoring results indicate that the pinyon-juniper ecosystem at the project site is moving toward desired conditions at an accelerated pace.



# ENCOURAGING ECOSYSTEM HEALTH & RESILIENCE

# TUSAYAN RANGER DISTRICT ACHIEVES GOAL OF ZERO HUMAN-CAUSED FIRES

In calendar year 2014, the Tusayan Ranger District achieved a longtime goal of zero human-caused fires. That success was due largely to the focused efforts of fire prevention specialist Bob Blasi, who has been working to reduce the number of human-caused fires on the district since he began working there 15 years ago. According to Kaibab National Forest wildfire records, the last time the Tusayan Ranger District had zero human fires was in 1965, exactly 50 years ago!

Blasi focused his efforts on the specific cause of these fires, which had most frequently been abandoned campfires. He worked to gain compliance in dispersed camping areas and issued citations when necessary. With increased early-morning patrols, an extensive signing program, visits to local schools, Smokey Bear presence at local events, and a consistent prevention message for more than 14 years, Blasi was able to systematically reduce the number of human-caused wildfires over the years.



## Wildlife

The Kaibab National Forest provides habitat for a wide variety of wildlife species. Forest managers are primarily responsible for providing habitat to maintain species diversity on national forest lands. Kaibab wildlife biologists work closely with the Arizona Game and Fish Department and the U.S. Fish and Wildlife Service, which are the lead agencies responsible for managing wildlife populations in Arizona, as well as many other partners.

During fiscal year 2014, almost 50,000 acres of wildlife habitat were improved through a variety of projects including prescribed burning, invasive weed removal, grassland maintenance, thinning and managed fire. The total number of acres treated per district was as follows:

- Williams Ranger District – 24,649
- North Kaibab Ranger District – 5,672
- Tusayan Ranger District – 19,195



## Silviculture and Timber

**Christmas Trees Sold**  
(over-the-counter at forest offices)  
Forest total – 1,582

**Personal and Free-Use Firewood**  
(for home heating and other purposes)  
Forest total – 10,151 cords\*

**Ceremonial Use Firewood**  
(for Native Americans for traditional and cultural purposes)  
Forest total – 112 cords\*

**Timber Volume Sold**  
Forest total – 64,128 ccf\*\*

**Timber Sale and Stewardship Contracts Volume Harvested**  
Forest total – 22,534 ccf\*\*

**Aspen Fence Construction**  
(for browse protection and to stimulate sprouting)  
Forest total – 21 acres

**Aspen Conifer Removal**  
(snipping small conifers within aspen sites to stimulate growth)  
Forest total – 150 acres

**Timber Stand Improvement**  
Forest total – 10,774 acres

**Other**

- Improved forest health and vegetation condition on 24,824 acres through forest thinning, piling of woody debris, and pile burning.

- Performed thousands of acres of stand exams to update forest vegetative information.

- Provided silvicultural prescriptions for multiple thinning projects and prescribed burns.

- Completed tree planting survival surveys on areas burned by the Eagle Rock and Warm fires.

- Planted 101 acres of trees on the area burned by the Eagle Rock Fire in order to enhance reforestation.

- Installed 53 acres of tree protection cone extensions on reforested areas of the X Fire in order to prevent ungulate browsing.

\* How do I measure a cord of wood?  
The amount of wood removed from the forest is measured in cords. A standard cord is 4x4x8 feet. A standard size pickup truck bed filled just above the top (if no side racks) is approximately 1/2 cord.  
\*\* The measurement ccf refers to 100 cubic feet.

Ecological Sustainability means that the ecosystem has the ability to maintain itself while retaining its biodiversity into the future. I believe that the work I do as a wildlife biologist assists ecosystems to be sustainable. Restoration, through thinning over-stocked forests and using prescribed burning and managed wildfires for resource benefit, greatly enhances the ecosystem's ability to adapt to a changing climate and reduces the risk of severe wildfires on federal lands. By supporting and managing projects for wildlife biodiversity, biologists assist in providing for ecological sustainability. – Justin Schofer, Wildlife Biologist, Williams/Tusayan Ranger Districts

## Archaeology

Archaeologists on the Kaibab National Forest completed 7,529 acres of new inventory in fiscal year 2014 – 1,860 acres on the Williams and Tusayan districts and 5,669 acres on the North Kaibab district. Through this inventory, 99 new archaeological sites were identified.

Kaibab heritage program personnel provided 54 outreach and interpretive programs, which reached more than 5,000 people.

Archaeologists inventoried all existing trail markers on the Beale Wagon Road Historic Trail, which traverses the Williams Ranger District, and monitored all intact segments of this popular route. Geospatial data was collected and made available to the

public for use in GPS units in order to further enhance appreciation of this important trail. Beale Wagon Road ran 1,240 miles from Ft. Smith, Arkansas, to the Colorado River. It was commissioned in 1857 by Congress as the Southwest's first federally-funded interstate road to be built through the newly-acquired lands to California. A retired Navy lieutenant, Edward Fitzgerald Beale, was chosen to chart the road's course through hundreds of miles of desert. Twenty-two camels, fresh from the Middle East, were provided to carry supplies and tools for Beale and his crew of 50 men.

Heritage staff members worked with the Youth Conservation Corps to inventory and relocate trail markers and segments of the Overland Road Historic Trail on the Williams

Ranger District. This very rugged trail was first used during the 1860s as a wagon road between Flagstaff and Prescott during the mining boom. The work will ensure continued public enjoyment of and safety while using the historic road.

Archaeologists completed monitoring and clean-up of 91 sites in Snake Gulch Canyon on the North Kaibab Ranger District. Trespass cattle had wintered in the canyon for several years causing trampling and other damage. A fence was constructed to block entry into the canyon, and resource specialists continue to monitor the area for trespass cattle.

The North Kaibab Ranger District designed and installed interpretive signs at

historic sites including the Orderville Canyon Logging Mill, the LeFevre Logging Mill, and the Warm Springs Mining District.

During fiscal year 2014, volunteer partners including Grinnell College interns, the Arizona Site Stewards, rock art researchers, Passport in Time participants, and individual volunteers contributed 1,213 hours toward the management, protection, documentation and interpretation of heritage resources across the Kaibab National Forest.

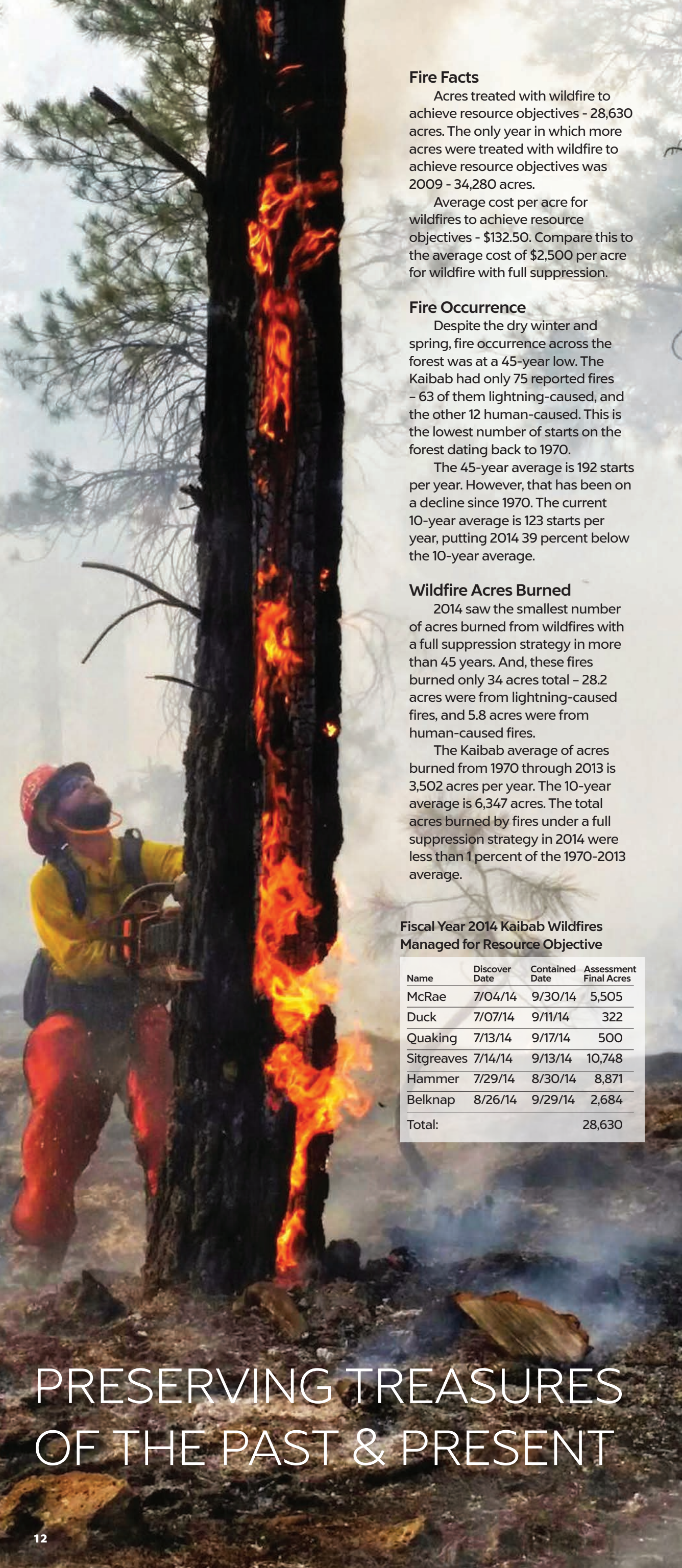
The Governor's Archaeology Advisory Commission awarded three longtime Kaibab National Forest volunteers – Jerry Dickey, Steven Freers and Don Christensen – a Special Achievement Award for their

publication "Rock Art of the Grand Canyon Region." The trio spent more than two decades recording hundreds of sites in and around the Grand Canyon including on the Kaibab.

Archaeologists oversaw forest restoration work to protect two significant sites on the Williams Ranger District. One site is one of only a handful of known Cohonina "forts," which are enigmatic, thick-walled, long-roomed masonry structures with few artifacts located on geographic prominences. The other site is a large, walled-compound. The forest restoration work will not only reduce the risk of damage from future wildfire but also move the area closer to historic conditions.







Fire Facts

Acres treated with wildfire to achieve resource objectives - 28,630 acres. The only year in which more acres were treated with wildfire to achieve resource objectives was 2009 - 34,280 acres.

Average cost per acre for wildfires to achieve resource objectives - \$132.50. Compare this to the average cost of \$2,500 per acre for wildfire with full suppression.

Fire Occurrence

Despite the dry winter and spring, fire occurrence across the forest was at a 45-year low. The Kaibab had only 75 reported fires - 63 of them lightning-caused, and the other 12 human-caused. This is the lowest number of starts on the forest dating back to 1970.

The 45-year average is 192 starts per year. However, that has been on a decline since 1970. The current 10-year average is 123 starts per year, putting 2014 39 percent below the 10-year average.

Wildfire Acres Burned

2014 saw the smallest number of acres burned from wildfires with a full suppression strategy in more than 45 years. And, these fires burned only 34 acres total - 28.2 acres were from lightning-caused fires, and 5.8 acres were from human-caused fires.

The Kaibab average of acres burned from 1970 through 2013 is 3,502 acres per year. The 10-year average is 6,347 acres. The total acres burned by fires under a full suppression strategy in 2014 were less than 1 percent of the 1970-2013 average.

Fiscal Year 2014 Kaibab Wildfires Managed for Resource Objective

Name	Discover Date	Contained Date	Assessment Final Acres
McRae	7/04/14	9/30/14	5,505
Duck	7/07/14	9/11/14	322
Quaking	7/13/14	9/17/14	500
Sitgreaves	7/14/14	9/13/14	10,748
Hammer	7/29/14	8/30/14	8,871
Belknap	8/26/14	9/29/14	2,684
Total:			28,630

PRESERVING TREASURES OF THE PAST & PRESENT

Engineering

- Notable successes during fiscal year 2014 included the following:
- Issued and administered numerous road maintenance permits to other government agencies and private entities.
  - 23 miles of road reconditioning and resurfacing on Forest Service Roads (FSR) 56, 105, 139 and 354 on the Williams Ranger District.
  - 17 miles of road reconditioning and resurfacing on FSR 688 and 320 on the Tusayan Ranger District.
  - 16 miles of road reconditioning and resurfacing on FSR 214 and 271 on the North Kaibab Ranger District.
  - North Kaibab Ranger District road maintenance contract work was performed; 141 miles of Maintenance Level (ML) 3 roads and 164 miles of ML2 roads were maintained.
  - Road crew maintenance of 237 miles of ML3 roads and 62 miles of ML2 roads across the forest.
  - Processed about 9,000 cubic yards of material for road maintenance work.
  - Installed critical warning and safety signage on major ML3 roads on the Williams Ranger District.
  - Completed extensive road reconditioning and improvement work on FSR 111, also known as Bill Williams Mountain Road, to include repairing drainage structures, cleaning or replacing culverts, repairing ditches, spot surfacing and surface blading.
  - Decommissioned 4 miles of Forest Service system roads.
  - Maintained and repaired cattle guards across the forest.
  - Awarded contracts to crush and stockpile 36,000 tons of road resurfacing aggregate at Ruin Pit on the Williams Ranger District.
  - Completely rehabilitated the plumbing at Green Base fire center in Pittman Valley on the Williams Ranger District.
  - Awarded a contract to rehabilitate the Jacob Lake Work Center waterline on the North Kaibab Ranger District.
  - Continued the installation of energy efficient lighting fixtures, building furnaces, and heating, ventilating and air conditioning systems at various forest offices and work centers.
  - Began planning effort to reduce risks to public safety and minimize potential downstream flood damage by modifying Railroad Tank Dam on the Williams Ranger District.
  - Awarded contracts for a number of facilities maintenance, replacement and demolition projects across the forest.

Livestock Grazing Management

Western lifestyles associated with ranching and livestock grazing have long been a part of the landscape. These historic and contemporary uses have become symbols of independence and contribute to the sense of place. Many people living in local communities participate in or have connections to ranching and identify with the associated values.

During World War II, Congress demanded as much protein production as possible from rangelands, and many areas were grazed unsustainably. The Kaibab National Forest made major reductions in authorized livestock from the 1950s through the 1970s in an effort to balance forage production with capacity. Further adjustments to grazing management have been made through site-specific National Environmental Policy Act analysis and decisions on all allotments. Currently, the Kaibab manages the range resource to balance livestock numbers with forage capacity.

Key accomplishments during fiscal year 2014 included the following:

- National Environmental Policy Act analysis was completed on the Kane Ranch and Juan Tank grazing allotments. This will improve grazing practices on 454,000 acres of the North Kaibab and Williams districts, which will result in improved soil and watershed conditions. These decisions incorporated range, climate change and restoration research that will help direct rangeland management in the future.
- The forest administrated 31 grazing allotments, totaling 561,269 acres. Forage production was good with consistent forage-producing moisture in most areas. The good monsoon season resulted in excellent production of cool season grasses that provide necessary ground cover to prevent soil erosion and sediment delivery to stream channels.
- Resource specialists continued to develop and implement a joint research and stewardship program on the North Kaibab Ranger District with multiple partners. This research included establishing Southwest Experimental Garden Array common garden sites for climate change monitoring; setting up livestock exclosures and enclosures; monitoring deer diet quality; green- and brown-stripping cheatgrass dominated areas; completing "Firescape" modeling; experimenting with seed coating and seed planting; and testing soil change related to cheatgrass. This work will be used for forest management throughout the Southwest for years into the future.



RAINBOW RIM GETS FRESH TRACKS ALONG THE NORTH RIM OF GRAND CANYON

Friends of the North Kaibab Ranger District, the International Mountain Bicycling Association, the Southern Nevada Mountain Bike Association, Zion Cycles, and Utah Mountain Biking Tours volunteered their time in summer 2014 to break ground on the new Rainbow Rim trail extension located along the North Rim of the Grand Canyon on the Kaibab National Forest.

The Rainbow Rim trail connects five scenic vistas along 18 miles of the North Rim, and each offers its own unique view of the surrounding landscape. The current trail begins at Parissawampitts point, continues to Fence point, Locust point, North Timp point, and ends at Timp point.

"We welcome riders to come lay down some fresh tracks as the trail extension project progresses, and we encourage those who would like to volunteer to help complete the trail to join us," said Melissa Robinson, North Kaibab Ranger District recreation specialist and coordinator for the trail extension. "We have worked diligently to bring this trail extension to fruition, and we are delighted to offer an awesome new scenic trail for mountain bikers, horseback riders, and hikers alike to see our forest from a completely new perspective."

The trail extension consists of new construction and about 4 miles of road-to-trail conversion. The new single-track extension will offer sections for beginners to advanced riders giving everyone a unique opportunity to experience epic views along the canyon rim. Once the extension project is complete, riders will be able to travel nearly 32 miles in a large loop.



The place on the Kaibab that makes me feel the most nourished and renewed just by being there is in the Saddle Mountain Wilderness on the North Kaibab Ranger District. There is a place along the trail just south of the East Rim Viewpoint where the forest opens up into lush green meadows surrounded by mixed conifer forests and aspen stands. Springs dot the landscape in this area drawing in wildlife of all kinds. The abundance of water creates supple green pillows of grass and leafy vegetation found in few other places on the forest. The busy world outside the wilderness ceases to exist along this trail, and life is good again.

- Andrea Tavegia, Natural Resource Specialist (Recreation), Williams Ranger District





## BILL WILLIAMS MOUNTAIN RESTORATION PROJECT TO TREAT 15,000 ACRES

The Bill Williams Mountain Restoration Project will treat approximately 15,000 acres on and surrounding Bill Williams Mountain on the Williams Ranger District in order to reduce wildfire risk and improve forest health and watershed conditions. Treating the mountain is a high priority for the Kaibab National Forest, and resource specialists continue to refine the project toward a final environmental impact statement. Implementation of the project is expected in 2015.

Recent catastrophic wildfires in northern Arizona have resulted in long-lasting social, political, and ecological impacts – loss of life; widespread flooding; erosion; sedimentation; snags; road damage; and, altered landscapes and watersheds. Bill Williams Mountain lies just southwest of the City of Williams and serves as the city's municipal watershed. In the Greater Williams Area Community Wildfire Protection Plan (2005), both the City of Williams and the Forest Service identified Bill Williams Mountain as a critical resource deserving special protection from catastrophic wildfire.

## WILLIAMS VISITOR CENTER FEATURED DISPLAY OF UNIQUE PHOTO COLLECTION

The Williams and Forest Service Visitor Center hosted a display that featured a unique historic photo collection documenting the history of the City of Williams and the surrounding area, including the Kaibab National Forest.

Since 2009, the Kaibab National Forest has collaborated with the Williams Public Library to gather historic photos, documents and oral histories for the Williams Historic Photo Project collection, which now boasts more than 2,100 separate items representing iconic places and themes such as “the Mother Road” Route 66, cattle and sheep ranching, logging and the timber industry, railroads and more.

The collection, which is entirely digital, is stored on a computer dedicated to the project at the Williams library and is made available to the public free of charge. The purpose of the project, according to Kaibab National Forest heritage program manager Margaret Hangan, is to preserve these precious treasures of the past and to make them available to the public for historic research.

The database contains scanned photos and documents from both the Kaibab National Forest and the Williams Public Library historic collections along with donated items from the personal collections of local families. Hangan and Williams Public Library director Andrea Dunn have led the 5-year-long effort to create what is now an indispensable resource for learning about the history of the local area.



*My greatest source of pride in working for the Kaibab is its management of low to moderate intensity wildfires on over 140,000 acres since 2003. It's not just our fire personnel who have made this possible; it has taken commitment and support from all resources areas. It's the one thing we're doing at a scale that is meaningful to improve the resilience of the forest in a changing climate. It provides immediate risk reduction of uncharacteristic stand-replacing fire at a reasonable cost, and it does so at a landscape scale.*

– Holly Kleindienst, Deputy Fire Staff, Kaibab National Forest



# BRINGING TOGETHER DIVERSE STAKEHOLDERS

## Kaibab National Forest achieves great success in managing fire thanks to community support

By: Mike Williams, Kaibab National Forest Supervisor

The Kaibab National Forest had an incredibly successful summer 2014 managing wildland fire thanks to the commitment of our employees to the important work of forest restoration and to the ongoing support we received



from the communities of northern Arizona.

From the beginning of the monsoon season in early July to fall, the Kaibab National Forest treated close to 29,000 acres with wildland fire managed for resource benefit. With the extremely dry winter we had last year and the potential for a severe fire season, it was not a given that we would be able to so broadly allow fire to perform its natural role in the ecosystem over the summer. When the monsoons arrived with their accompanying lightning, we looked for every opportunity to let naturally-ignited fires spread in order to clear out understory brush and small trees, create better conditions for wildlife, and reduce the risk of catastrophic crown fires during future fire seasons.

Deciding to manage a fire is never an easy call and involves a range of considerations, from risk to fire fighters and the public, to potential impacts to archaeological and other sensitive forest resources, to the availability

of fire personnel and equipment to be assigned to the fire over an unknown period of time. But, one of the major considerations for me in any decision to manage fire is always smoke and its anticipated effects on communities adjacent to the Kaibab National Forest and those farther downwind.

While smoke is an inevitable part of living in the fire-adapted ponderosa pine ecosystem of northern Arizona, I recognize that it can be difficult to deal with over days and weeks when a managed fire is burning nearby. This past summer, the Parks and Tusayan communities, in particular, showed incredible resilience and offered enduring support despite fairly long-term managed fires that produced varying levels of smoke from day to day. I also recognize that Parks and Tusayan weren't the only recipients of smoke from Kaibab fires. Communities across northern Arizona often have to deal with smoke from forest restoration projects on lands managed by a number of

different agencies. The bottom line is that it was because of the understanding of forest health and community protection issues and the ongoing support provided by our local communities that we were able to accomplish as much as we did.

Over the last decade, the Kaibab National Forest treated an average of 11,486 acres per year with wildland fire managed for resource objectives. Even though we more than doubled that accomplishment in 2014, it was not the number of acres alone that made me proud. We achieved a few critically important milestones with our fires.

The Quaking Fire on the North Kaibab Ranger District reached 500 acres in size before it was doused by heavy rains. While small, it was our first managed fire in mixed conifer forest, which was made possible by the implementation of our new Land and Resources Management Plan for the Kaibab National Forest released in February. Under our old forest

plan, we would have suppressed the fire because it was in mixed conifer forest designated as Mexican spotted owl habitat. Mixed conifer is fairly rare across the larger landscape and is critical for many wildlife species. The Quaking Fire was our first step toward restoring fire to the mixed conifer forest on the North Kaibab, which will go a long way toward protecting wildlife habitat.

The 2,684-acre Belknap Fire on the Tusayan Ranger District drastically improved forest health conditions in one of the few forested areas on the Tusayan district that had not seen widespread fire entry in decades, the Coconino Rim. Due to its location, topography and fuel type, wildfire was not only the most cost effective and efficient way to treat the rim country but also likely the only feasible tool we could use.

Finally, the Sitgreaves Complex on the Williams Ranger District grew to about 11,000 acres and was in a steep, rugged, densely-forested area that many people doubted would see treatment in their lifetimes. At the time the fire started, some fuel moisture

levels were still very low from the dry winter and spring, and our old forest plan would have required that we suppress it. Again, thanks to implementation of our new plan, we were able to look at the full scope of fuel conditions and determine that the fire's effects on the mountain would be within desired conditions. I am incredibly pleased with the results of the Sitgreaves Complex, and I am confident that the area will be more resilient to the next fire that occurs, which is especially important given that we have fire starts on Sitgreaves Mountain every year.

The successes in managing fire during 2014 have moved us one step closer to the healthy forest conditions that we all need and want. With a focus on increasing capacity for mechanical treatments through projects such as the Four Forest Restoration Initiative, a continued commitment to managing fire when and where appropriate, and the understanding and support of our local communities, the Kaibab National Forest is making great strides toward a restored and healthy forest.



ACRES TREATED FOR NOXIOUS WEEDS  
AND INVASIVE PLANTS – 2,952 ACRES



# Fostering Ecological, Social and Economic Sustainability

## KAIBAB NATIONAL FOREST SURVEYING FOREST VISITORS

The Kaibab National Forest began surveying forest visitors on all three of its ranger districts on Oct. 1, 2014, in an effort to better understand what sites and facilities they use, how long they stay, and how satisfied they are with their experience. Kaibab National Forest employees are conducting the visitor use surveys near developed and dispersed recreation sites and along forest roads through the fiscal year, which will end Sept. 30, 2015.

The Kaibab National Forest surveys are part of the Forest Service National Visitor Use Monitoring program, which provides reliable information about recreation visitors to National Forest System managed lands at the

national, regional and forest level. Information about the quantity and quality of recreation visits is required for several purposes including forest planning and improving public service.

National Visitor Use Monitoring information assists Congress, Forest Service leaders and program managers in making sound decisions that best serve the public and protect valuable natural resources. The surveys are conducted once every five years and provide forest managers with an estimate of how many people actually recreate on federal lands and what activities they engage in while there.

Other important information gathered is how satisfied people were with their visits and the economic impact of recreation visitation on the local economy.

“The more we know about our visitors, especially their level of satisfaction and desires for various recreation opportunities, the better we can serve their needs,” said Liz Schuppert, public services staff officer for the Kaibab National Forest.

## KAIBAB IS COOPERATOR IN DEVELOPMENT OF BISON MANAGEMENT PLAN

The Kaibab National Forest is a cooperating agency with the National Park Service, Arizona Game and Fish Department, and Bureau of Land Management in developing a bison management plan and environmental impact statement to address resource impacts from a large herd of bison that has taken refuge on the Grand Canyon National Park’s north rim.

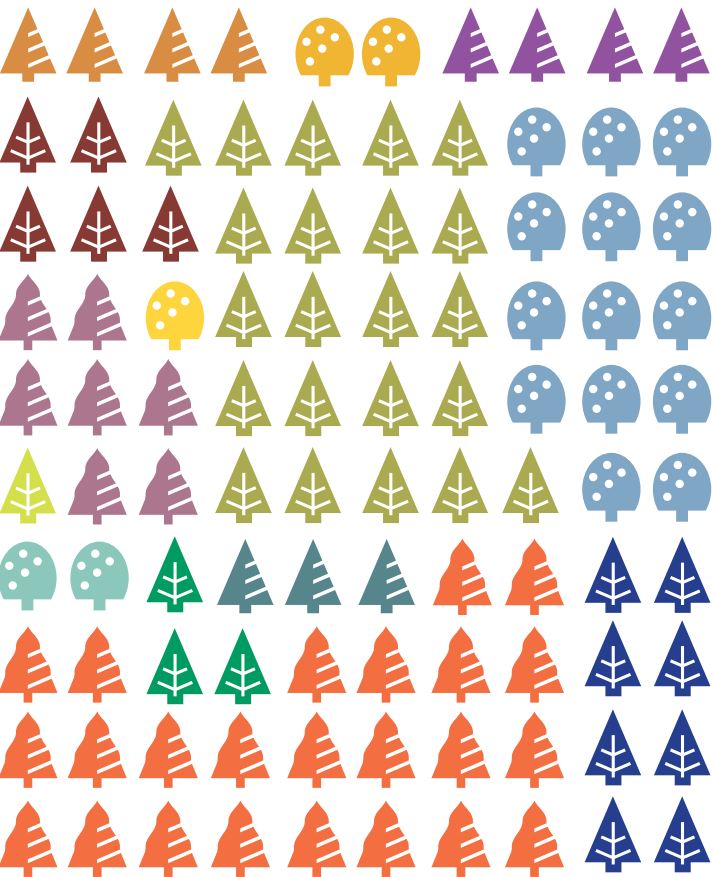
A herd of bison was brought to the Arizona Strip in the early 1900s and has been managed since 1950 by the Arizona Game and Fish Department in the House Rock Wildlife Area on the Kaibab National Forest through an interagency agreement with the Forest Service.

During the late 1990s, the bison began pioneering up to the top of the Kaibab Plateau and into Grand Canyon National Park. A combination of public hunt pressure, drought and fire, and reduced forage quality in House Rock Valley during the 1990s may have contributed to the bison moving through Saddle Mountain Wilderness and onto the higher elevations of the Kaibab Plateau and Grand Canyon. Over the past several years, very few bison have returned to House Rock Wildlife Area, and most now spend a majority of time inside the park.



Grand Canyon National Park initiated an environmental impact statement in April 2014, and the Kaibab National Forest is a cooperating agency. A draft bison management plan and a draft environmental impact statement are expected to be available for public review and comment in summer 2015. The cooperators plan to issue an Integrated Interagency Bison Management Plan in fall 2016.

## FY14 BUDGET



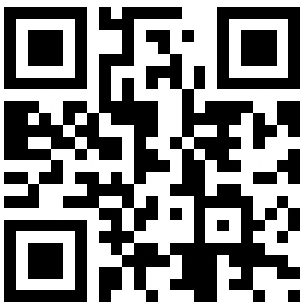
Administration 14%	Integrated Restoration 22%	Recreation 5%
Facility Maintenance 4%	Other 0%	Road Maintenance 8%
Fire Preparedness 24%	Permanent Funds 3%	State & Private Forestry 1%
Forest Planning 3%	Range 2%	Trails 1%
Fuels 7%		Trust Funds 4%

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